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**Memorandum**

**To:** LaDonna Turner, Site Assessment Manager  
Technical and Enforcement Branch  
U.S. Environmental Protection Agency, Region 6

**From:** Dana Bahar, Manager, Superfund Oversight Section  
Ground Water Quality Bureau, New Mexico Environment  
Department.

**Date:** September 1, 2009

**Subject:** Pre-CERCLIS Screening Assessment of Section 25 SEQ Mine,  
McKinley County, New Mexico: Further action under CERCLA  
recommended

<b>Site name</b>	Section 25 SEQ Mine			
<b>City</b>	not applicable	<b>State</b>	New Mexico	<b>Zip code</b> not applicable
<b>County</b>	McKinley			
<b>Latitude</b>	35° 19' 16.92"	<b>Longitude</b>	107° 50' 35.22"	

**Site physical description:** Site observations of the Section 25 SEQ Mine by NMED personnel were made from Haystack Road, from which only an active aggregate pit and an elongated waste dump were evident. Anderson (1980) describes the site as one of the most extensive strip complexes on the Todilto Limestone bench, comprising open pits, trenches, box cuts, and one decline extending over a distance of 5/8 mile. The box cuts are described as ranging in depth from 5 feet and 40 to 50 feet with shear walls. Anderson also observes that biomass production and carrying capacity across the site have been impaired by the large spoil piles.

**Site identification:** Potential alluvial ground water contamination within the Grants Mineral Belt was identified because background standards established for the contaminants of concern for ongoing remedial action associated with the Homestake Mining Company NPL site (CERCLIS NMD0007860935) are generally higher than Maximum Contaminant Levels (MCLs). NMED conducted sampling of private residential wells in subdivisions located in the vicinity of the HMC site, and found that the majority had one or more contaminant concentrations exceeding MCLs.

**Site summary:** Observations made during NMED's Site reconnaissance are shown on the accompanying figures. As indicated, little surface disturbance was visible from Haystack Road. Anderson (1980) includes pictures of extensive stripped areas and waste materials. Contamination of vicinity soils and surface drainages by precipitative erosion and wind dispersion comprise the primary contaminant pathways that may be associated with this site. Additionally, site runoff of contaminated wastes may impact ground water quality through seepage through alluvium.

**Targets:** The closest residence to the Site is approximately 0.72 mile northwest of the site on Haystack Road; a second residence on Haystack Road is located approximately 1.0 miles northwest of this residence. Residences located near the junction of State Hwy. 605 and 509 are approximately 4 air-miles northeast of the Site. Other potential targets may include cattle and wildlife.

Closest well sampled to date: livestock well SMC-22 (1 air-mile; 48.2 µg/l total uranium in 2009 sampling).

**Site ownership and Potentially Responsible Parties:** Surface rights for the site reportedly are held by Elkins Real Estate and Berryhill Ranch Ltd. Mineral rights reportedly are held by Newmont Mining Company. Amiran/Reserve Oil and Minerals reportedly last operated the mine in 1981.

**File review:** NMED staff reviewed the following files:

- Database compiled by Mining and Minerals Division of the New Mexico Energy, Minerals, and Natural Resources Department (07/20/2007).
- Anderson, Orin J., 1980. "Abandoned or inactive uranium mines in New Mexico".
- McLemore, Virginia T. and William L. Chenoweth, 1991. "Uranium mines and deposits in the Grants district, Cibola and McKinley Counties, New Mexico." New Mexico Bureau of Mines and Mineral Resources Open-file report 353.
- Rappaport, Linda, "Uranium deposits of the Poison Canyon ore trend, Grants District," in "Geology and technology of the Grants Uranium Region, 1963. State Bureau of Mines and Mineral Resources.
- U.S. Geological Survey, 1997. "Gallup quadrangle NURE HSSR study." OFR-97-492.

**Site reconnaissance:** NMED staff conducted a Site reconnaissance on July 2, 2009.

**Recommendation:** A release of CERCLA hazardous substances has been documented at the site. NMED recommends further investigation under CERCLA to assess the risk posed by the site using the Hazard Ranking System.

NMED recommends that the investigation include the following:

1. Sample sediments along drainages to characterize extent of Site-derived waste dispersion.
2. Investigate and characterize surface water accumulations and ground water impacts.

In addition NMED recommends the following actions be performed to address immediate threats to public health and the environment:

1. Remove waste with elevated radioactivity.
2. Stabilize unstable pit highwalls

Ms. LaDonna Turner, EPA Region 6 Site Assessment Manager  
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**Figure 1: Section 25 SEQ mine**

“Px” reference the location of photographs on pages following.



P1: Section 25 aggregate pit; view toward SW



P2: Section 25 SEQ Mine; view to W